

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES

Matt Blunt, Governor • Doyle Childers, Director

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APR 06 2006

Mr. John DeLashmit
U.S. Environmental Protection Agency
Region VII
901 North Fifth Street
Kansas City, KS 66101

RE: Permit for Montgomery City's Northeast Wastewater Treatment Plant in Lieu of Total Maximum Daily Load for Elkhorn Creek (WBID 189)

Dear Mr. DeLashmit:

Elkhorn Creek near Montgomery City in Montgomery County, Missouri, is on the 2002 303(d) list for Biochemical Oxygen Demand (BOD). In addition, EPA removed sediment from Elkhorn Creek's 303(d) listing and added Non-Volatile Suspended Solids (NVSS). The stream is impaired for two miles from the source, the Montgomery City Northeast Wastewater Treatment Plant (WWTP), Permit Number MO-0084158. The WWTP's effluent Total Suspended Solids (TSS) includes some inorganic material (NVSS) that washes into sewers and Volatile Suspended Solid (VSS) organics like sludge and algae related to wastewater processes. The Missouri Department of Natural Resources (department) has opted to correct these impairments through permit limits in lieu of a Total Maximum Daily Load (TMDL).

The city's northeast WWTP is located near the headwaters of Elkhorn Creek. There are no other treatment plants upstream and the land is sparse rural development. In 2004 BOD upstream of the WWTP was non-detectable and the dissolved oxygen (DO) averaged 6.0 mg/L above the WWTP, suggesting that there are no significant sources of BOD pollution to the stream above the WWTP.

The listing for the impaired reach was based on 10 samples taken from approximately 0.5 miles upstream of the WWTP to 2.5 miles below the WWTP, on August 11, 1999. Forty samples were collected at several locations from 0.4 mile above the WWTP to 3 miles below the WWTP on July 14-15, 2004 and August 4-5, 2004.

Montgomery City is designing a new WWTP and will begin construction in 2006. The department renewed the operating permit for this facility on March 24, 2006 with interim limits during the construction period and new final limits to take effect on March 28, 2008. These limits ensure stream water quality standards (WQS) will be met. The DO WQS of 5 mg/L will be achieved by limiting the effluent BOD to 30 mg/L as a daily maximum and 15 mg/L monthly average. The effluent TSS is limited to 30 mg/L as a daily maximum and 15 mg/L monthly average which will significantly reduce any suspended solids to the stream. In addition, the permit sets ammonia limits at 5 mg/L as a daily maximum and 2.5 mg/L monthly average for summer and 8.1 mg/L as a daily maximum and 4 mg/L monthly average for winter. The interim permit limits for BOD are 25 mg/L monthly average (40 mg/L weekly average) in summer and 30 mg/L monthly average (45 mg/L weekly average) in winter. TSS interim limits are 30 mg/L monthly average and 45 mg/L daily maximum. The interim monthly average ammonia limits are 2.4 mg/L summer and 3.6 mg/L winter. The wasteload allocation and new permit limits were established for BOD, TSS and ammonia using the QUAL2E model. The new limits go into effect upon completion of the construction.



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Mr. John DeLashmit
Page Two

Enclosed please find the Missouri State Operating Permit for the Montgomery City's Northeast WWTP. The final limits will be met when the construction is complete and, by meeting them, the WQS should be achieved in Elkhorn Creek. The department will schedule ambient instream water quality monitoring the first full year after the new plant is in operation to determine if the new permit limits have eliminated the impairment. In addition, the permit includes the following monitoring requirement to ensure permit limits are being achieved: quarterly instream water monitoring one quarter mile downstream of the outfall for DO, pH, ammonia, and temperature, as well as an annual WET test. A reopener clause is included in the permit to allow for stricter limits if monitoring shows WQS violations.

With this letter, the department submits the Montgomery City Northeast WWTP permit to the U.S. EPA for concurrence that the permit will serve in lieu of a TMDL. We appreciate EPA taking prompt action on this. If you have any questions, please contact Mr. Philip Schroeder at (573) 751-6623 or by mail at Missouri Department of Natural Resources, Water Protection Program, P.O. Box 176, Jefferson City, Missouri 65102-0176.

Sincerely,
WATER PROTECTION PROGRAM

Edward Galbraith
Director

EG:mcl

Enclosure

c: Mr. William Bryan, Attorney General's Office
Mr. Daniel R. Schuette, Director, DEQ
Mr. Earl Pabst, Deputy Director, DEQ
Missouri Clean Water Commission



To: Phil S
5/5/06

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VII
901 NORTH 5TH STREET
KANSAS CITY, KANSAS 66101

MAY 01 2006

Mr. Edward Galbraith, Director
Water Pollution Control Program
Water Protection and Soil Conservation Division
Missouri Department of Natural Resources
P.O. Box 176
Jefferson City, Missouri 65102

Dear Mr. Galbraith:

RE: Permit Limits in Lieu of a TMDL for Elkhorn Creek

This letter responds to the submission from the Missouri Department of Natural Resources (MDNR), dated April 6, 2006, regarding Elkhorn Creek, which was listed as impaired on Missouri's 1998 §303(d) list, for Biochemical Oxygen Demand (BOD). In addition, Elkhorn Creek has had sediment removed and Non-Volatile Suspended Solids (NVSS) added, as a 303 (d) listing. MDNR proposes to correct the impairments with National Pollutant Discharge Elimination System (NPDES) permit limits in lieu of a Total Maximum Daily Load (TMDL). The following water body segment was proposed to be corrected through permit limits.

Water Body	WBID	Impairment	Source	Permit #	Year added to list
Elkhorn Creek	0189	Biochemical Oxygen Demand (BOD) Non Volatile Suspended Solids (NVSS)	Montgomery City East Wastewater Treatment Plant (WWTP)	MO-0084158	1998


Waters require TMDLs when certain pollution control requirements are not stringent enough to implement water quality standards for such waters. To exempt an impaired water from the TMDL process, the pollution control requirements cited in the regulation under 130.7(b)(i), (ii), and (iii) must be established and enforced by federal, state, or local laws or regulations, and be stringent enough that, when applied, the receiving water will meet water quality standards.

In regards to Elkhorn Creek, federal regulations at 40 CFR 130.7(b)(ii) provide that where [more stringent effluent limitations (including prohibitions) required by either state or local authority preserved by section 510 of the Act, or federal authority (law, regulation, or treaty) are stringent enough to implement water quality standards, a TMDL is not required. The Environmental Protection Agency

has completed its review of this submission, and other previously submitted information supporting this permit in lieu of a TMDL, and concurs that a TMDL is not required for this impaired water body because the impairment is being addressed through more stringent NPDES permit limits as per 40 CFR 130.7(b)(ii).

The Montgomery City East WWTP has been identified as the sole source for the Volatile Suspended Solids (VSS) and BOD, on Elkhorn Creek, as a result of surface water monitoring directly above and below the WWTP. The NPDES permit was issued on March 24, 2006, for the Montgomery City East WWTP and includes final limits which will take affect March 28, 2008. The 303 (d) listing is also for NVSS. The WWTP's effluent Total Suspended Solids (TSS) includes inorganic material (NVSS) and organic material (VSS). Although the 303 (d) listing was for NVSS, the WWTP data (enclosure) indicates that VSS is a better indicator. The TSS concentrations above the plant are indicative of impairment, other than one outlying value. The VSS concentrations increase immediately after the WWTP. The data indicates no significant NVSS sources above the Montgomery City East WWTP, therefore the permit should be protective of the water quality standards.

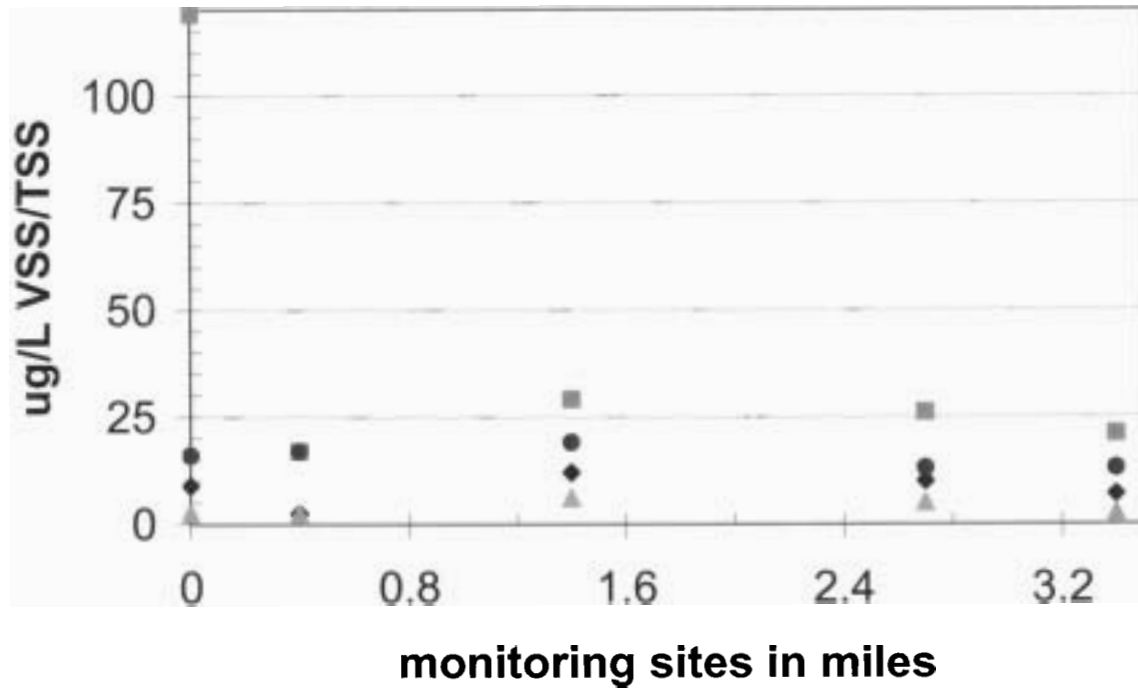
If you have any questions or concerns in regards to this matter, please do not hesitate to contact Jack Generaux, TMDL Team Leader, at (913)551-7690, or Tabatha Adkins, TMDL Team, at (913)551-7128.

Sincerely,

Betty J. Berry
Acting Director
Water, Wetlands, and Pesticides Division

Enclosure

cc: Ann Crawford, TMDL Chief, MO Dept of Natural Resources
Phil Schroeder, Missouri Department of Natural Resources

Elkhorn Creek



◆ TSS Min ■ TSS Max ▲ VSS Min ● VSS Max